AMENDMENTS TO THE CLAIMS

1. (Cancelled).

2. (previously presented) The system of claim 31, wherein the first sensor comprises an NMR sensor.

3. (currently amended) The system of claim ~~32~~ 31, wherein ~~the non-rotating stabilizer is adjustable, and further comprising a second sensor for detecting motion of the drilling tubular proximate the first sensor,~~ a diameter of the non-rotating stabilizer being adjusted in response to the detection of motion by the second sensor.

4. (original) The system of claim 3, wherein the second sensor comprises an accelerometer.

5. (original) The system of claim 3, wherein the second sensor comprises three mutually orthogonal accelerometers.

6. (currently amended) The system of claim ~~1~~ 31, wherein the wellbore comprises a deviated wellbore.

7. (cancelled)

8. (currently amended) The system of claim 31 ~~32~~, wherein the predetermined level is 2.0 millimeter.

9. (currently amended) The system of claim ~~7~~ 31, wherein the rib is a straight rib.

10. (currently amended) The system of claim ~~7~~ 31, wherein the rib is a spiral rib.

11. (cancelled)

12. (cancelled)

13. (currently amended) The system of claim ~~7~~ 31, wherein the housing is adapted to displace the center of the non-rotating stabilizer relative to a longitudinal axis of the drilling tubular.

14. (previously presented) The system of claim 31, further comprising two non-rotating stabilizers cooperating to form the vibrational node, with one non-rotating stabilizer being deployed on each side of said first sensor.

15. (previously presented) The system of claim 31, wherein the first sensor comprises at least one of (i) a density sensor and (ii) a porosity sensor.

16. (cancelled)

17. (previously presented) The method of claim 34, wherein the first sensor comprises an NMR sensor.

18. (currently amended) The method of claim 35, further comprising ~~using a second sensor disposed in said drilling tubular for detecting motion of the drilling tubular proximate the first sensor; and~~ adjusting a diameter of the non-rotating stabilizer in response to the detection of motion by the second sensor.

19. (original) The method of claim 18, wherein the second sensor comprises an accelerometer.

20. (original) The method of claim 18, wherein the second sensor comprises three mutually orthogonal accelerometers.

21. (original) The method of claim 16, wherein the wellbore comprises a deviated wellbore.

22. (cancelled)

23. (previously presented) The system of claim 35, wherein the predetermined level is 2.0 millimeter.

24. (original) The method of claim 22, wherein the rib is a straight rib.

25. (original) The method of claim 22, wherein the rib is a spiral rib.

26. (cancelled)

27. (currently amended) The method of claim ~~22~~ 31, wherein the housing is adapted to displace the center of the non-rotating stabilizer relative to a longitudinal axis of the drilling tubular.

28. (currently amended) The method of claim ~~35~~ 34, wherein the non-rotating stabilizer comprises two non-rotating stabilizers cooperating to form the vibrational node, with one non-rotating stabilizer being deployed on each side of said first sensor.

29. previously presented) The method of claim 34 wherein the first sensor comprises at least one of (i) a density sensor and (ii) a porosity sensor.

30. (cancelled)

31. (currently amended) A system for controlling sensor motion while measuring a parameter of interest in a wellbore formed in an earthen formation, comprising:

(a) a drilling tubular conveyed into the wellbore, said drilling tubular having at least one vibrational node; ~~and~~

(b) a first sensor positioned along the drilling tubular at the at least one vibrational node, the first sensor measuring the parameter of interest;

(c) a substantially non-rotating stabilizer disposed along said drilling tubular to form the at least one vibrational node, said substantially non-rotating stabilizer reducing motion of said first sensor below a predetermined level and comprising:

(i) a housing attached to said drilling tubular;

(ii) a sleeve substantially surrounding at least a portion of said housing;

(iii) a bearing acting cooperatively with said sleeve and said housing for allowing relative motion between the sleeve and the housing; and

(iv) a rib attached to said housing, said rib extending radially outward from the housing to reduce motion of said first sensor below the predetermined level, wherein the rib is an adjustable rib adapted to be controllably extended to contact a wellbore wall;

(d) a downhole controller; and

(e) a second sensor for detecting motion of the drilling tubular proximate the first sensor, said controller controlling the adjustable rib to reduce motion detected by said second sensor below the predetermined level.

32. (cancelled)

33. (previously presented) A system of claim 31 wherein the at least one vibrational node has been analytically predicted.

34. (currently amended) A method for controlling sensor motion during a measurement, comprising:

a. conveying a drilling tubular in a wellbore to a downhole location;

b. forming a vibrational node in the drilling tubular; and

c. disposing a first sensor at the vibrational node, said first sensor measuring a formation parameter of interest.

d. forming the vibrational node with a non-rotating stabilizer that reduces motion of said first sensor below a predetermined level during said measurement, wherein the non-rotating stabilizer comprises:

(i) a housing adapted to attach to said drilling tubular;

(ii) a sleeve substantially surrounding at least a portion of said housing;

(iii) a bearing acting cooperatively with said sleeve and said housing for allowing relative motion between the sleeve and the housing;

(iv) a rib attached to said housing, said rib extending radially outward from the housing to reduce motion of said first sensor below the predetermined level, wherein the rib is an adjustable rib adapted to be controllably extended to contact a borehole wall;

e. detecting motion of the drilling tubular proximate the first sensor with a second sensor; and

f. controlling the adjustable rib with a controller to reduce motion detected by said second sensor below the predetermined level.

35. (Cancelled)

36. (previously presented) A method of claim 34 wherein the at least one vibrational node has been analytically predicted.